

IN THE CLAIMS

Claims 1-16 (Canceled).

17. (New) A method of constructing an application for generating a final output comprising:

providing a set of program-creation wizards selectable by a user to construct a rules based application;

extracting pre-existing information from a pre-existing local data source specified by the user in the rules based application;

extracting externally provided information from an external data source based on the pre-existing information; and

generating the final output based on the pre-existing information and the externally provided information.

18. (New) The method according to claim 17, further comprising:

selecting a subset of data items of interest from the pre-existing local data source and using the selected subset of data items to extract data of the externally provided information corresponding thereto.

19. (New) The method according to claim 17, further comprising:

specifying a local database of items with values as the pre-existing local data source;

specifying an external database on a website that updates the values as the external data source;

navigating to the website;

extracting the updated values from the website; and

returning the updated values to the rules based application for use in generating the final output.

20. (New) The method according to claim 17, wherein the local database comprises a spreadsheet file.

21. (New) The method according to claim 17, wherein the external data source is a spreadsheet file.

22. (New) The method according to claim 17, wherein the external data source is a web page.

23. (New) The method according to claim 17, further comprising:
auto-determining data elements in the pre-existing local data source.

24. (New) The method according to claim 17, further comprising:
auto-determining data types in the pre-existing local data source.

25. (New) The method according to claim 17, further comprising:
auto-determining data types in the external data source.

26. (New) The method according to claim 17, wherein the pre-existing information is automatically extracted from the pre-existing local data source.

27. (New) A method for constructing a business rules based application comprising:
providing a set of wizards selectable by a user;

selecting at least one wizard from the set of wizards to specify a number of actions to be performed by the business rules based application;

providing a set of verbs selectable by the user;

selecting at least one verb from the set of verbs to define the number of actions to be performed by the business rules based application; and

arranging the number of actions in a user-specified hierarchical order to set the order of execution of the actions in the application.

28. (New) The method according to claim 27, wherein only certain actions operate on data during execution time.

29. (New) The method according to claim 27, further comprising:

specifying actions to construct the business rules based application and actions to operate on data during execution of the business rules based application.

30. (New) The method according to claim 27, wherein the actions include conditional actions.

31. (New) The method according to claim 27, further comprising:

stepping through the number of actions to debug the business rules based application.

32. (New) A computer readable medium comprising instructions, which when executed by a processor, performs a method of constructing an application for generating a final output comprising:

providing a set of program-creation wizards selectable by a user to construct a rules based application;

extracting pre-existing information from a pre-existing local data source specified by the user in the rules based application;

extracting externally provided information from an external data source based on the pre-existing information; and

generating the final output based on the pre-existing information and the externally provided information.

33. (New) The medium according to claim 32, further comprising:

select a subset of data items of interest from the pre-existing local data source and using the selected subset of data items to extract data of the externally provided information corresponding thereto.

34. (New) The medium according to claim 32, further comprising:

specifying a local database of items with values as the pre-existing local data source;

specifying an external database on a website that updates the values as the external data source;

navigating to the website;

extracting the updated values from the website; and

returning the updated values to the rules based application for use in generating the final output.

35. (New) The medium according to claim 32, wherein the local database comprises a spreadsheet file.

36. (New) The medium according to claim 32, wherein the external data source is a spreadsheet file.

37. (New) The medium according to claim 32, wherein the external data source is a web page.

38. (New) The medium according to claim 32, further comprising:
auto-determining data elements in the pre-existing local data source.

39. (New) The medium according to claim 32, further comprising:
auto-determining data types in the pre-existing local data source.

40. (New) The medium according to claim 32, further comprising:
auto-determining data types in the external data source.

41. (New) The medium according to claim 32, wherein the pre-existing information is automatically extracted from the pre-existing local data source.

42. (New) A computer readable medium comprising instructions, which when executed by a processor, performs a method for constructing a business rules based application comprising:
providing a set of wizards selectable by a user;
selecting at least one wizard from the set of wizards to specify a number of actions to be performed by the business rules based application;
providing a set of verbs selectable by the user;

selecting at least one verb from the set of verbs to define the number of actions to be performed by the business rules based application; and

arranging the number of actions in a user-specified hierarchical order to set the order of execution of the actions in the application.

43. (New) The medium according to claim 42, wherein only certain actions operate on data during execution time.

44. (New) The medium according to claim 42, further comprising:

specifying actions to construct the business rules based application and actions to operate on data during execution of the business rules based application.

45. (New) The method according to claim 42, wherein the actions include conditional actions.

46. (New) The method according to claim 42, further comprising:

stepping through the number of actions to debug the business rules based application.

47. (New) Apparatus for constructing an application for generating a final output comprising a processor programmed to:

provide a set of program-creation wizards selectable by a user to construct a rules based application;

extract pre-existing information from a pre-existing local data source specified by the user in the rules based application;

extract externally provided information from an external data source based on the pre-existing information; and generate the final output based on the pre-existing information and the externally provided information.

48. (New) The apparatus according to claim 47, wherein the processor is further programmed to:

select a subset of data items of interest from the pre-existing local data source and using the selected subset of data items to extract data of the externally provided information corresponding thereto.

49. (New) The apparatus according to claim 47, wherein the processor is further programmed to:

specify a local database of items with values as the pre-existing local data source;

specify an external database on a website that updates the values as the external data source;

navigate to the website;

extract the updated values from the website; and

return the updated values to the rules based application for use in generating the final output.

50. (New) The apparatus according to claim 47, wherein the local database comprises a spreadsheet file.

51. (New) The apparatus according to claim 47, wherein the external data source is a spreadsheet file.

52. (New) The apparatus according to claim 47, wherein the external data source is a web page.

53. (New) The apparatus according to claim 47, wherein the processor is further programmed to:
auto-determine data elements in the pre-existing local data source.

54. (New) The apparatus according to claim 47, wherein the processor is further programmed to:
auto-determine data types in the pre-existing local data source.

55. (New) The apparatus according to claim 47, wherein the processor is further programmed to:
auto-determine data types in the external data source.

56. (New) The apparatus according to claim 47, wherein the pre-existing information is automatically extracted from the pre-existing local data source.

57. (New) Apparatus for constructing a business rules based application comprising a processor programmed to:
provide a set of wizards selectable by a user;
select at least one wizard from the set of wizards to specify a number of actions to be performed by the business rules based application;
provide a set of verbs selectable by the user;
select at least one verb from the set of verbs to define the number of actions to be performed by the business rules based application; and
arrange the number of actions in a user-specified hierarchical order to set the order of execution of the actions in the application.

58. (New) The apparatus according to claim 57, wherein only certain actions operate on data during execution time.

59. (New) The apparatus according to claim 57, wherein the processor is further programmed to:
specify actions to construct the business rules based application and actions to operate on data during execution of the business rules based application.

60. (New) The apparatus according to claim 57, wherein the actions include conditional actions.

61. (New) The apparatus according to claim 57, wherein the processor is further programmed to:
step through the number of actions to debug the business rules based application.